

1 **Amendments to the Claims:**

2 This listing of claims will replace all prior versions, and listings of claims in the
3 application:

4 **Listing of Claims:**

5 Claims 1-35 (Cancelled)

1 36. (New) A method of identifying an inhibitor of a
2 glycosyltransferase that transfers a monosaccharide from a sugar nucleotide to an
3 acceptor substrate, the method comprising contacting the glycosyltransferase, an acceptor
4 substrate, and a donor substrate with a hydrophobic, non-carbohydrate test compound
5 that inhibits interaction of a sugar with hydrophobic amino acids in the active site of the
6 glycosyltransferase and determining the degree to which the activity of the
7 glycosyltransferase is inhibited in the presence of the test compound.

1 37. (New) The method of claim 36, wherein the activity of the
2 glycosyltransferase is determined using an antibody that is specifically immunoreactive
3 with a product of the reaction catalyzed by the glycosyltransferase.

1 38. (New) The method of claim 37, which is an ELISA format.

1 39. (New) The method of claim 36, wherein the glycosyltransferase is
2 expressed in a recombinant cell.

1 40. (New) The method of claim 36, wherein the donor substrate or
2 acceptor substrate is labeled.

1 41. (New) The method of claim 40, wherein the label is a radioactive
2 label.

- 1 42. (New) The method of claim 41, which is a radioactive column
2 assay.
- 1 43. (New) The method of claim 40, wherein the label is a fluorescent
2 label.
- 1 44. (New) The method of claim 36, wherein the glycosyltransferase is
2 a fucosyltransferase.
- 1 45. (New) The method claim 36, wherein the glycosyltransferase is a
2 sialyltransferase.
- 1 46. (New) The method claim 36, wherein the glycosyltransferase is an
2 *N*-acetylglucosaminyltransferase.
- 1 47. (New) The method of claim 36, wherein the compound comprises
2 an aromatic or aliphatic ring structure.
- 1 48. (New) The method of claim 36, wherein the compound comprises
2 an aryl moiety.
- 1 49. (New) The method claim 36, wherein the compound comprises a
2 heteroaryl moiety.
- 1 50. (New) The method of claim 25, wherein the heteroaryl moiety is
2 selected from the group consisting of a thiophene, pyridine, isoxazole, phthalimide,
3 pyrazole, indole, quinoline, phenothiazine, carbazole, benzopyranone, and a furan group.